

IL YATHENKO J. M.

PHASE I BOOK EXPLOITATION

585

Bondaryuk, Mikhail Makarovich and Il'yashenko, Sergey Mikhaylovich

Prysmotochayye vozdushno-reaktivnyye dvigateli (Ramjet Engines) Moscow, Oborongiz, 1958. 391 p. 10,000 copies printed.

Ed. of Publishing House: Petrova, I. A.; Tech. Ed.: Rozhin, W. P.; Reviewer: Shehetinkov, Ye. S., Doctor of Technical Sciences, Professor; Ed.: Makurov, B. V., Engineer; Managing Ed.: Sokolov, A. I.

FURPOSE: This book is intended for engineers, specialists in aircraft-engine design and for students of aviation vuzes who are acquainted with basic thermodynamics and gas dynamics.

COVERAGE: The authors state that this book is the first attempt at a generalized compilation of information indispensable for understanding the physical processes of ramjet engines (hereafter abbreviated RJE) and also for analysis of their gas dynamics and thrust. Source materials for this book included monographs and periodical articles in Soviet and foreign technical publications, and also some research work of the authors.

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Ramjet Engines

combustion process, chambers may be subdivided into single-shall and doubleshell types. Both kinds may be of a vortex or stable-flow type. The suthors also mention electrical and compression ignition, jet-swiri and pneumatic injection, and progressive and instant mixing. There are 19 references, of which 9 are Soviet (including 3 translations) and 10 are English.

In Chapter IX, "Subscnie RJE's," the authors describe the essential features of a subscnie RJE, and define its efficiency (7 percent) on the basis of the meximum obtainable intake pressure in a subsonic flight (1.89 times the atmospheric pressure). They give a method of analysis of these engines by successive approximations, and a method of computation of thrust characteristics of a real engine. They describe the most economical operating conditions and the speed and altitude characteristics of subsonic RJR's. They also mention various applications of subsonic RJE's. There are 14 references, of which 4

are Soviet and 10 English. "Supersonic RJE's." With modern fuels or atomic power Chapter X, concerns "Supersonic RJE's." With modern fuels or atomic the speed of continuous flight will be limited by the heat resistance of materials. At speeds of M > 6, the temperature from friction is higher than the melting point of steels. At N & 4, the specific consumption of fuel of a supersonic RJE is lower and the efficiency higher (more than 40 percent) than for any other type of engine. Various applications of supersonic RJE's are

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Remjet Engines

585

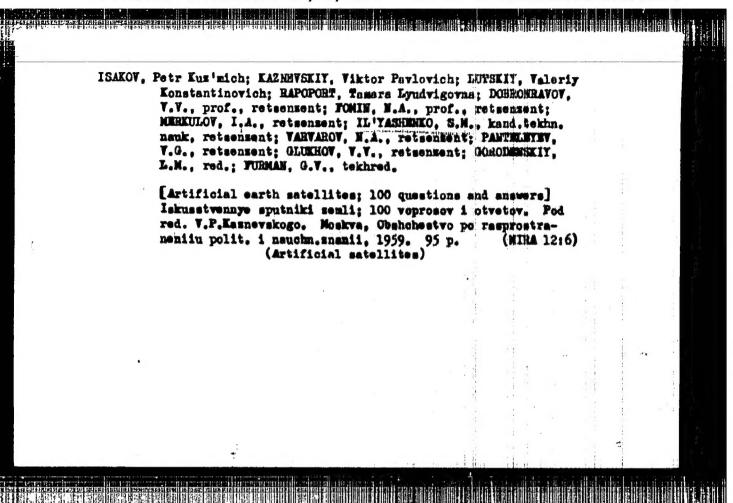
variable-area nozzles. There is no possibility of improvement of fixed-area nozzles. Engines working in various operating conditions must be provided with variable-area nozzles. The large store of energy accumulated in the ionized gas of the ionosphere may eventually be utilized in RJE's by means of a catalyst or by other devices. The authors mention the Soviet scientis'. Ya. B. Zel'dovich, who works in this field. The authors consider nuclear reactors for RJE's an immediate problem, and radioactive isotopes are mentioned as a possible source of energy. Beta batteries using artificial radioactive isotopes and producing electrical energy directly by radioactive decomposition are also mentioned as a potential source of energy for RJE's. At the end of the book 5 graphs of gas-dynamic functions are given:

1.
$$\tau(\lambda) = 1 - \frac{k-1}{k+1} \lambda^2$$

2. $\pi(\lambda) = [\tau(\lambda)] \frac{k}{k-1}$
3. $\varepsilon(\lambda) = [\tau(\lambda)] \frac{k}{k-1}$
4. $q(\lambda) = \lambda \varepsilon(\lambda) = \lambda(1 - \frac{k-1}{k+1})^2 \frac{1}{k-1}$
5. $\varepsilon(\lambda) = \lambda + \frac{1}{\lambda}$

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•	Ramjet Engines	585	4
	and 5 entropy diagrams of dissociated combustion products of keroseme. The authors mention the following scientists responsible for elaboration of the supersonic RJE theory: S. F. Abramovich, B. S. Stechkin, and Zhuyev. In other fields Ye. S. Shehetinkov, G. I. Petrov, B. P. Ukhov, and I. A. Merkalov are mentioned.		
	TABLE OF CONTENTS:) (1)	
	Preface		3
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	Ch. I. Jet-engine Classification and 1. Classification of jet engines 2. Jet-engine paremeters 3. Duration and flight distance 4. Fields of application of various		9 10 18 21 24 31
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S/147/60/000/02/010/020 E022/E407

On the Spray-Pattern of the Liquid Fuel Swirl Atomixers

kinetic pressures the length of the fully preserved position of the film increases as the air pressure decreases. At higher relative speeds of fuel or at higher pressures of the medium, the aerodynamic forces acting on the film are large and the process of disintegration of the fuel film begins ammediately behind the orifice without the assistance of the capillary waves. As the pressure increases, the aerodynamic forces increase as well and the atomization becomes finer. Thus, as the pressure is increased the mean diameter of droplets at first increases, reaches a maximum (the lower the relative velocity of fuel the higher the pressure at which this maximum is reached) and then begins to decrease. The relative velocities of fuel as practised in combustion chambers are rather high, hence the higher the air density the better is the atomization. On the basis of the experimental results obtained by various investigators, the author succeeded in deriving an empirical relation of Eq (1.1) to (1.3) of which Eq (1) gives the medium diameter of droplets, Eq (1.2) the weight rate of production of droplets and Eq (1.3) the parameter of the

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On the Spray-Pattern of the Liquid Fuel Swirl Atomizers

effectiveness of atomization. This parameter depends on the nature of the temperature of the fuel used, as shown in Fig 2, which agrees well with Ref 7. Next the flow of fuel from a swirl atomizer placed against the air stream (Fig 1) is analysed using the findings of Ref 11 to 13. The result is Eq (2.11) giving the range of extension of the spray. As the air pressure is increased atomization improves, droplets slow down quicker and the range of the spray diminishes. As the air temperature increases its density diminishes, hence the atomization is worse and the range of the spray increases. But as the fuel temperature is increased, its density, viscosity and surface tension diminish, atomization improves and the range of the spray decreases As the pressure in the fuel system increases, the initial velocity of the fuel increases, atomization improves and the range of the spray decreases in spite of high initial velocity of the droplets. By increasing the diameter of the orifice of the atomizer or by reducing the swirl of the fuel, atomization becomes worse and the

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On the Spray-Pattern of the Liquid Fuel Swirl Atomizers.

range of the spray increases. The shape of the spray in the absence of rotation (w = 0) was analysed in Ref 14. The velocity and the coordinates of the trajectories of the droplets are as given by Eq (2.12) to (2.14); from the last relation, the author deduces as given by Eq (2.16). The effect of various parameters on this limiting transverse radius is shown in Fig 5 to 8 and the graphs show good agreement with the experimental the effect of fuel pressure; Fig 6 the effect of the air velocity; Fig 7 the effect of the fuel temperature and diameter. There are 8 figures and 14 references, 8 of which are Soviet and 6 English.

SUBMITTED: November 3, 1959

Card 4/4

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Spray Torches of Centrifugal Atomisers (Part II)

concentration of the fuel diminishes. Referring to earlier experiments, summarised by Abramovich, G.N. ("Turbulent Free Jet of Liquids and Gases" Energoizdat, Moscow-Leningrad, 1948), the axial concentrations of admixtures to a turbulent jet are inversely proportional, whilst its radius is directly proportional to the length of the base section. In order to ignite a non-vapourising to torch in the wake of the atomiser, a stabiliser must be arranged. Burning can be maintained until the mixture impinging on the stabiliser does not exceed the separation limit. Referring to satisfactorily predicted for relatively large atomisers. There are 8 figures and 7 references: 5 Soviet and 2 English.

SUBMITTED: January 23, 1960

Card 2/2

88616

8/147/60/000/004/008/016 E081/E235

26.1220

AUTHOR:

Il'yashenko, S. M., (Moscow)

TITLE:

Evaporation and Combustion of a Monopropellant in the Chamber of a Liquid Fuelled Rocket Engine

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy.

Aviatsionnaya tekhnika, 1960, No. 4, pp. 72-82

On the basis of three assumptions: (1) the evapor-TEXT: ation of liquid fuel is the limiting process determining the kinetics of combustion, the parameters of the chamber, and its size; (2) the temperature of the combustion products is constant along all lengths of the chamber; (3) the evaporation of liquid fuel occurs from one end to the other at a gradually diminishing velocity such that the drops are subjected to an acceleration near to that of the gas, a mathematical analysis is made of the evaporation and combustion of fuel drops in the combustion chamber. Relations are derived and are shown graphically between the chamber parameters and length of the combustion zone, and between the chamber parameters and time of combustion of single component liquid fuel. The following conclusions are drawn: (1)

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88636

5/147/60/000/004/008/016 E081/E235

Evaporation and Combustion of a Monopropellant in the Chamber of a Liquid Fuelled Rocket Engine

On improved atomisation, that is on decreasing the mean Sauter diameter (Abstracter's note: "Sauter" diameter, not defined in the paper) of the drops, the length of the combustion zone of single-component or pre-mixed fuel in the combustion chamber decreases. If the drops are very small (diameter < 30 microns), the evaporation velocity becomes larger than the mass velocity of micro-diffusional turbulent combustion and the theory ceases to approximate to the truth. (2) With increasing growth of gas temperature on combustion, that is with increasing heat productivity of the fuel, the evaporation and combustion velocities increase according to a logarithmic law, but combustion time and the required length of chamber both decrease. (3) With increasing mass flow of liquid fuel and thermal conductivity of the gases, the evaporation and combustion velocities increase, but with the growth of heat capacity and viscosity of the gases, and density of the fuel, they decrease. (4) The calculated length of the evaporation combustion zones of drops of single-component Card 2/3

88616 S/147/60/00D/004/008/016 E081/E235

Evaporation and Combustion of a Monopropellant in the Chamber of a Liquid Fuelled Rocket Engine

or pre-mixed liquid fuel are close to the chamber length found empirically. There are 4 figures and 8 references: 7 Soviet and 1 non-Soviet.

SUBMITTED: February 2, 1960

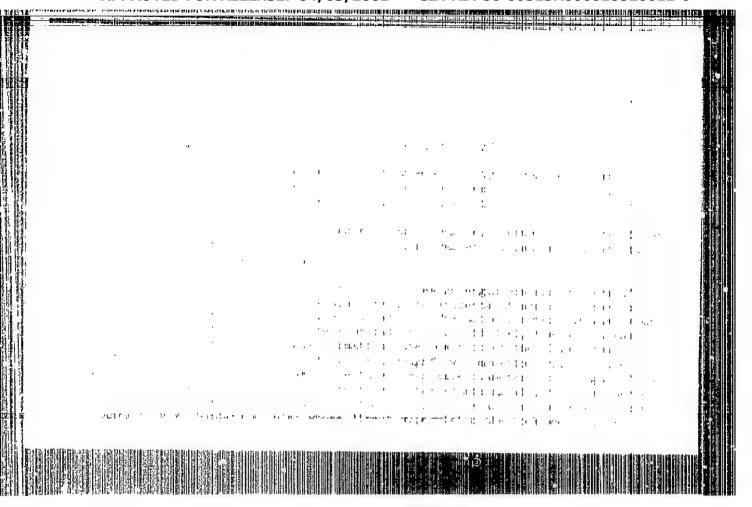
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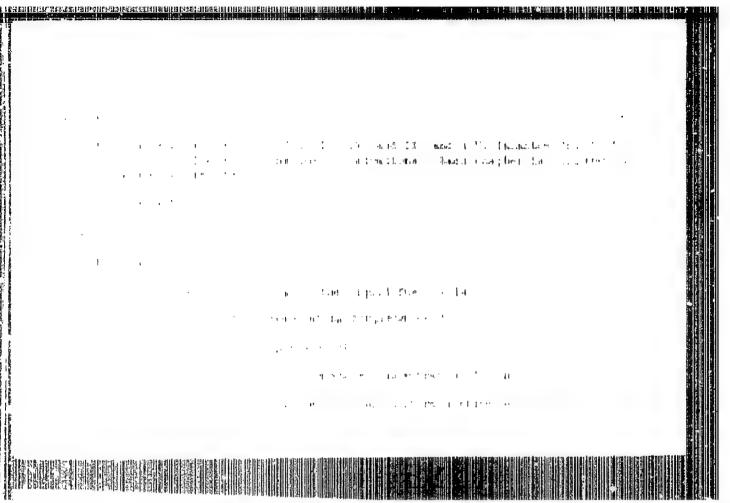
Card 3/3

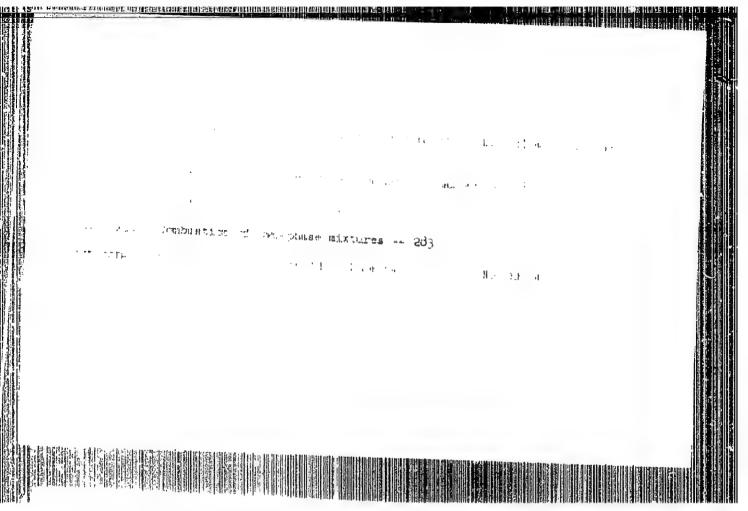
IL'YASHENKO, Sergey Mikhaylovich [deceased]; TALANTOV, Aleksey
Vasil'yevich; BOLGARSKIY, A.V., doktor tekhn. nauk,
retsenzent; HESPALOV, I.V., kand. tekhn. nauk, retsenzent;
KLYACHKO, L.A., kand. tekhn.nauk, retsenzent; CHUMACHENKO,
B.N., inzh., red.; BONDARYUK, M.M., doktor tekhn. nauk,
prof., red.; POPOV, A.V., red.

[Theory and design of direct-flow combustion chambers] Teoriia i raschet priamotochnykh kamer sgoraniia. Moskva, Mashinostroenie, 1964. 305 p. (EIRA 17:12)

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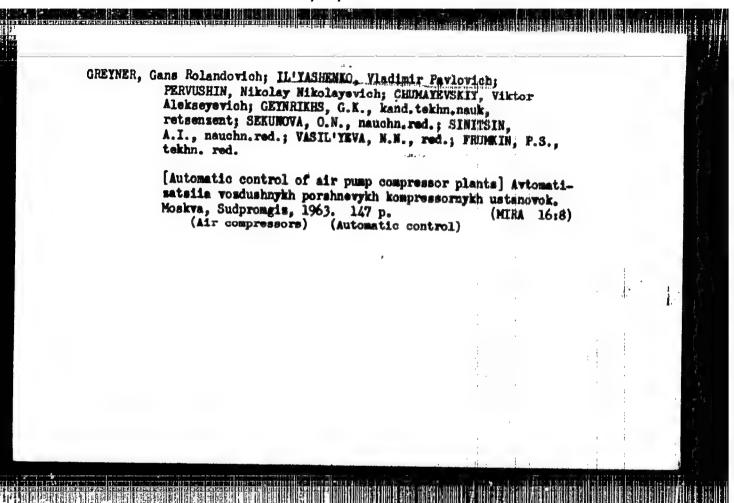


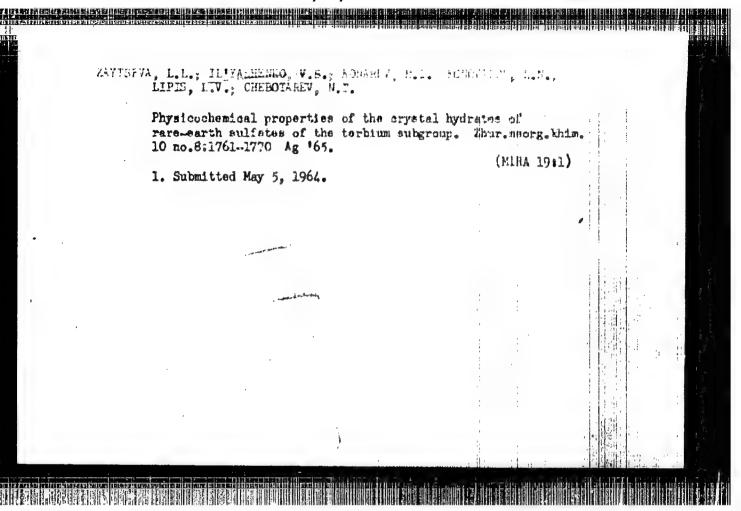


LL YAShewo, v.

Supply and utilization of gas in Stalingrad. Gas.prom. [no.11]:30-31
'57. (Stalingrad--Gas)

(MIRA 10:12)



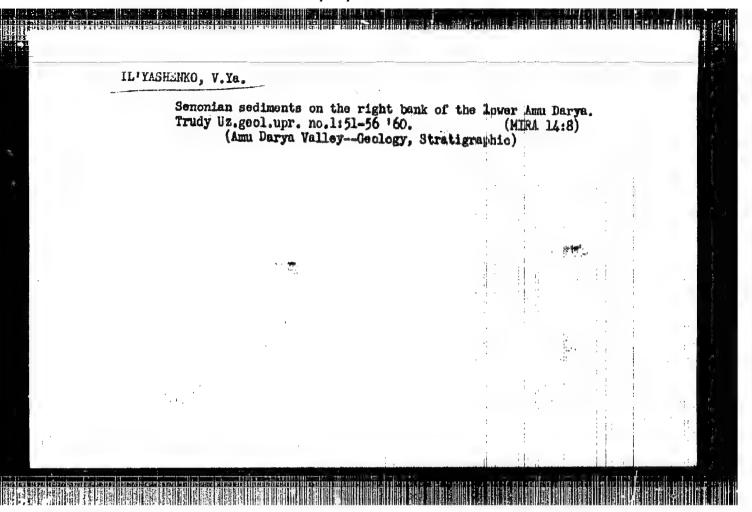


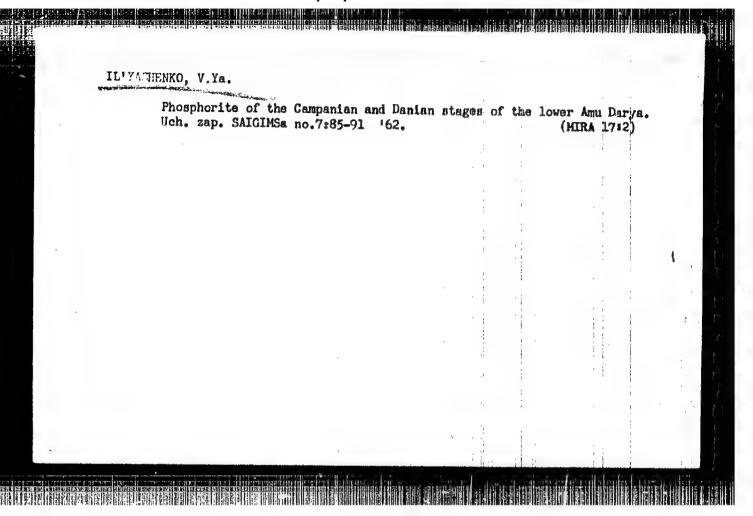
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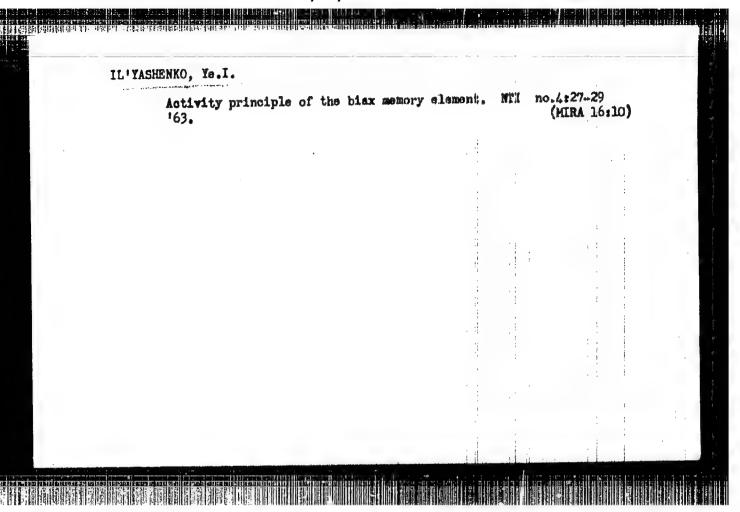
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My '58.

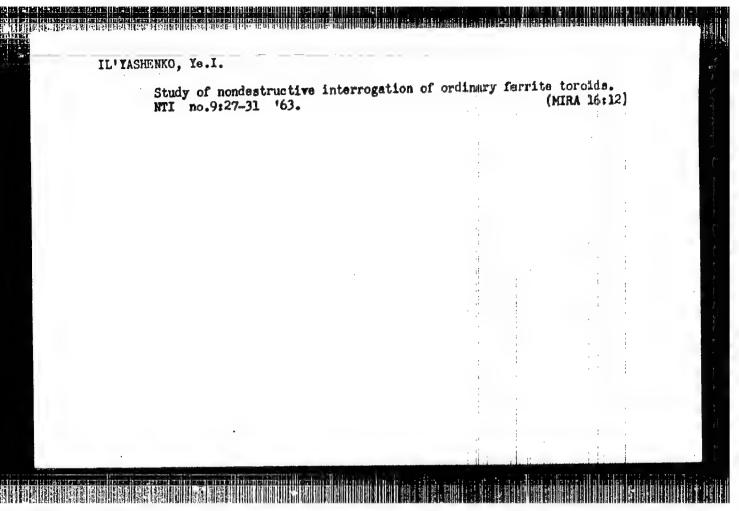
1. Wachal'nik tekhnicheskogo otdela tresta "Nikopol'stroy" (for Il'yashen-ko). 2. Komissiya po ratsionalizatsii 1 isobretatel'stvu tresta "Nikopol'stroy" (for Kiryatsev).

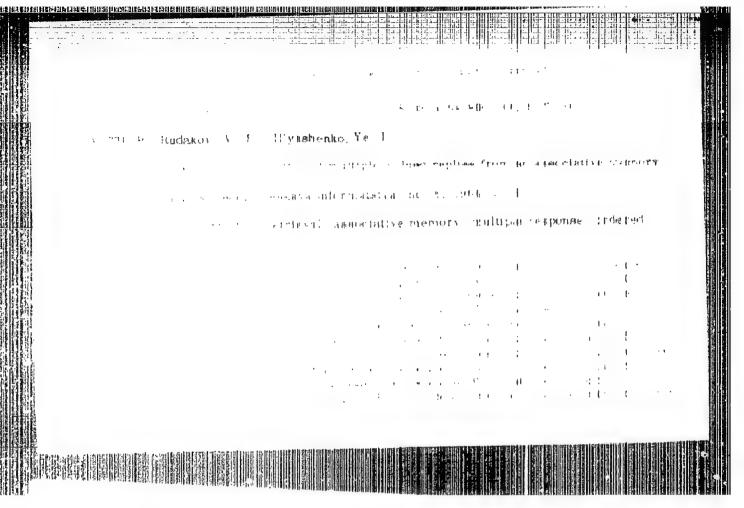
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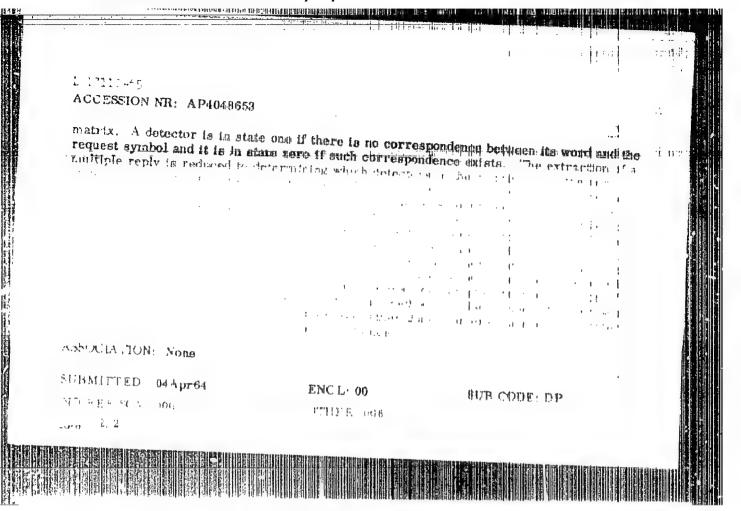








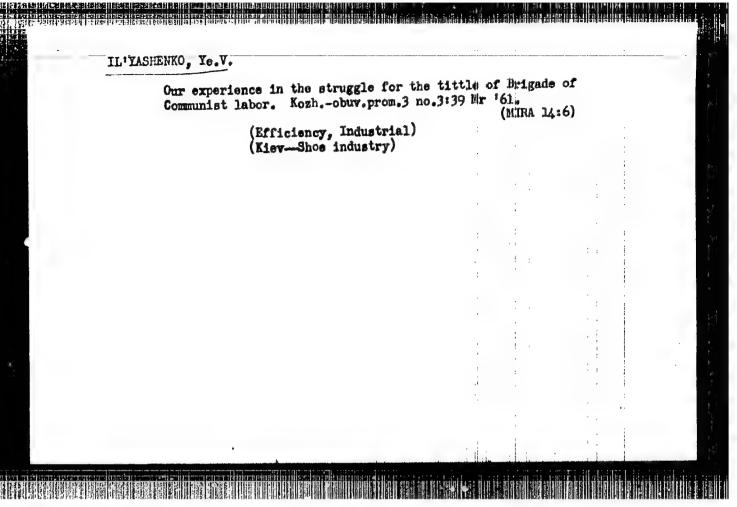




RUDAKOV, V.F.; IL'YASHENKO, Ye.I.

Methods of selecting a multiple enswer from an associative memory.

NTI no.6:27-36 '64. (MIRA 17:9)



[Fruits of the land; sketches on the virgin lands]

[Fruits of the land; sketches on the virgin lands] Khleb-sol'; ocherki o tseline. Alma-Ata, Kazgoslit-izdat, 1964. 320 p. (MIRA 18:5)

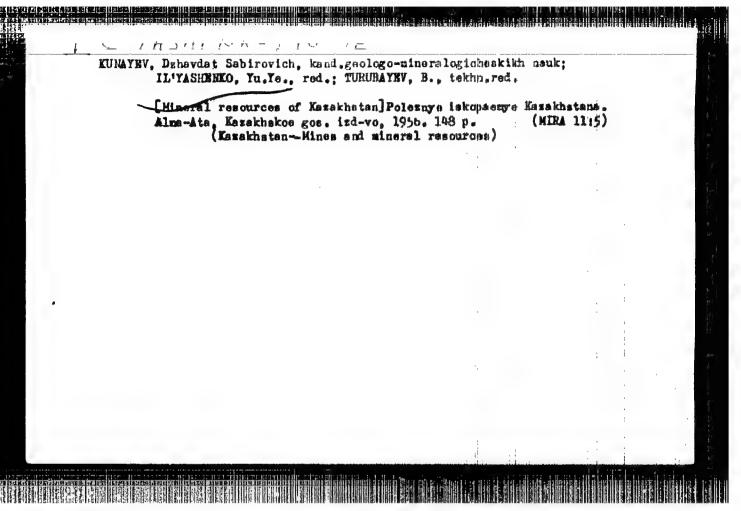
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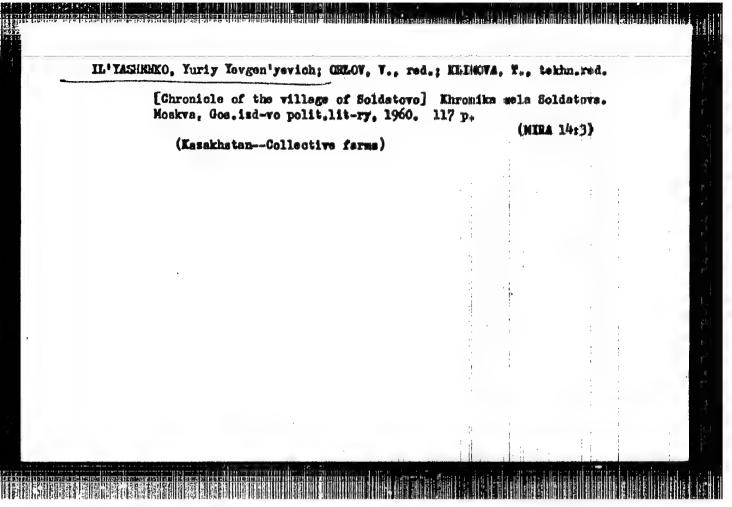
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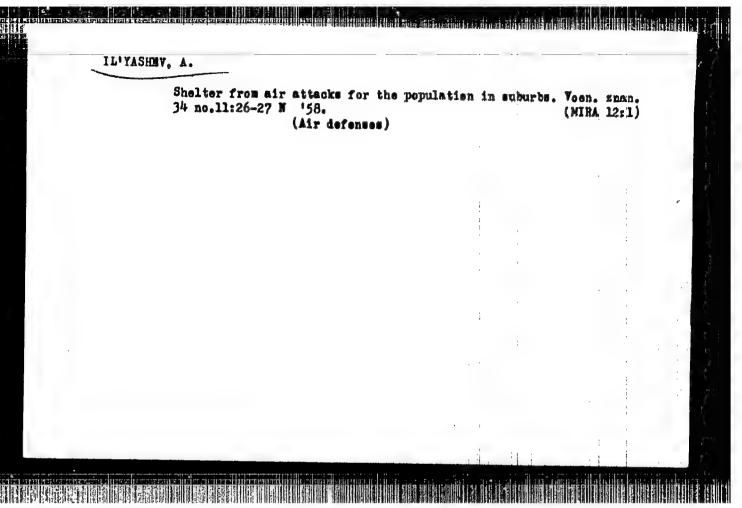
Regular polygons in En space. Vest. Mosk. um. Ser.l: Mat., mekh. 17 no.5:18-24 S-0 '62. (MIRA 15:9)

l. Kafedra vysskey geometrii i topologii Moskovskogo universiteta.

(Polygons)







BABKIN, I.A.; BOGOLYUBSKIY, G.N.; BURLINOV, I.I.; VOZNESEHSKIY, V.V.;

DANILYUK, V.S.; ZAPOL'SKIY, G.N.; BUBKIN, A.S.; II; YASHEV, A.S.;

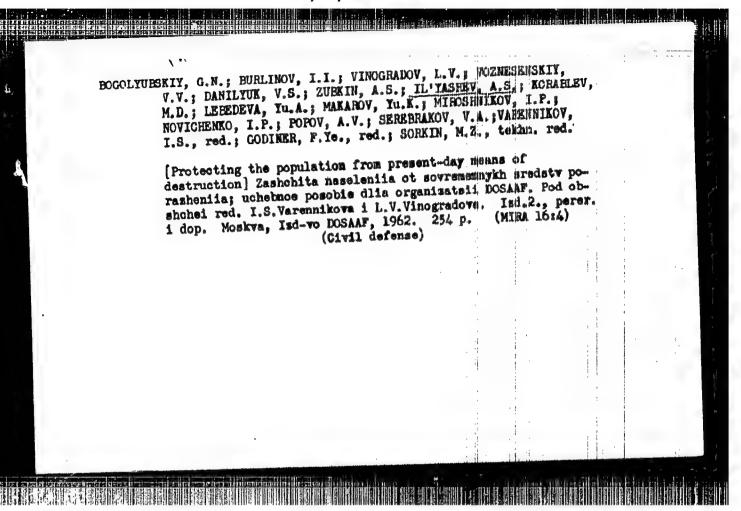
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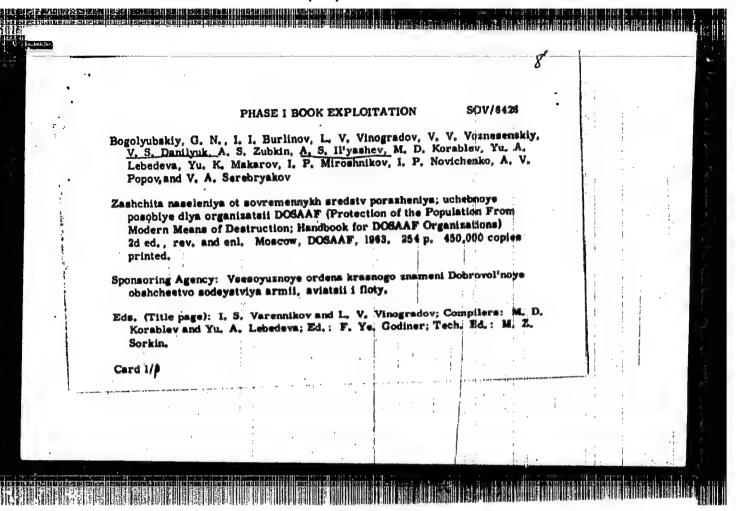
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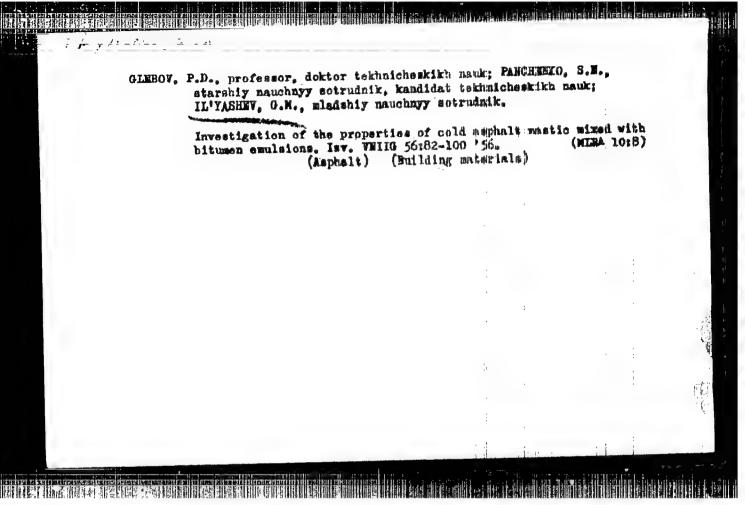
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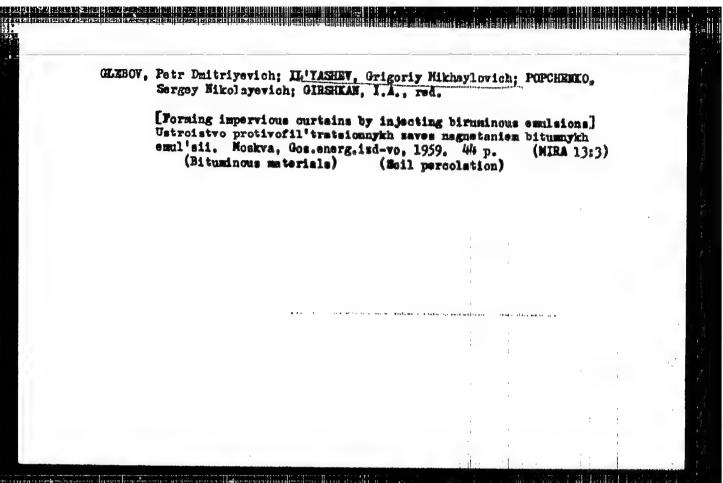
B.I., tekhn.red.

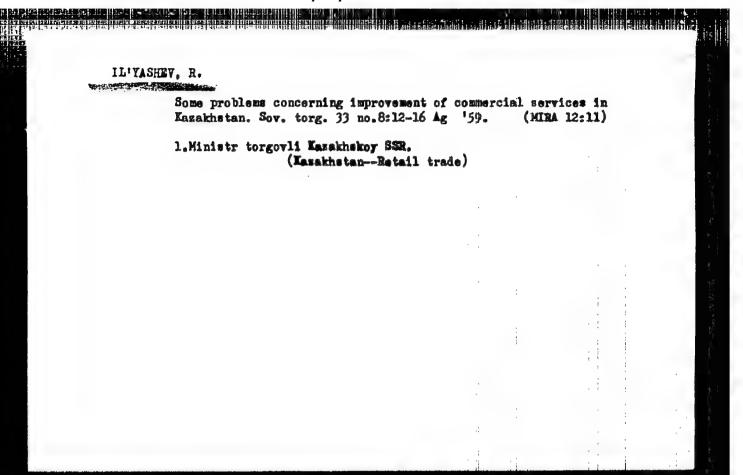
[Protecting the public from present-day means of destruction; a textbook for organizations of the All-Union Voluntary Society for the Promotion of the Army, Aviation, and Navy] Zashchita naseleniia ot sovremennykh sredstv porasheniis; uchebnoe poschie dlia organizatsii Vsesoyuznogo dobrovol'nogo obshchestva sodeystviya armii, paviatsii i flotu. Moskva, Isd-vo DOSAAF, 1958. 334 p. (MIRA 12/4) (Civil defense)



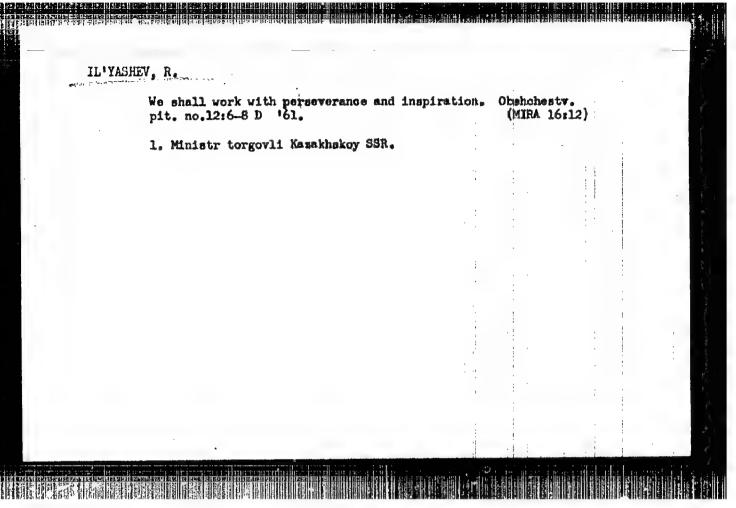








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ARZHANYY, P.M.; VOLKOVA, R.M.; PROKOSHKIN, D.A.; Prizimeli uchastiye: PETROVA, R.V.; IL'YASHEVA, N.A.

Investigating the diffusion of silicon and titanium in niobium.

Trudy Inst. met. no.11:78-82 *62. (MIRA 16:5)

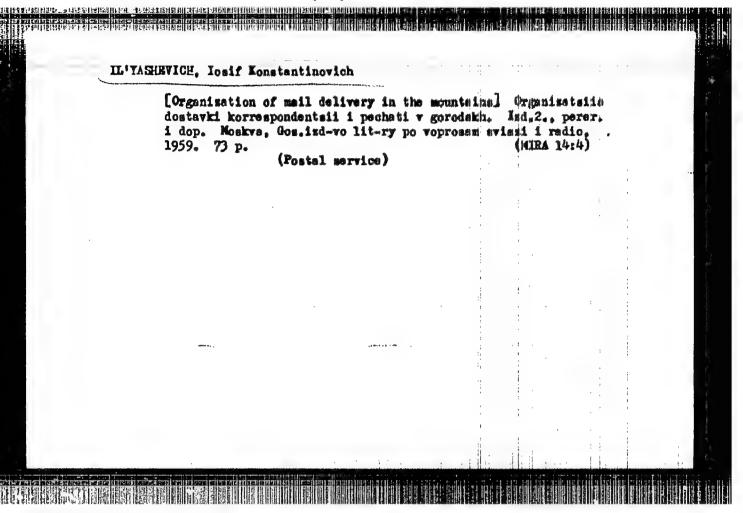
(Niobium—Metallography) (Diffusion contings)

at and a special contraction of the properties and the properties of the properties

IL'YASHEVICH, I. K.

"Shortcomings in Organisation of Delivery Service at Mail Enterprises," Vest. svyazi, No.8, pp 21-22, 1953

Deputy Chief, Division for Organization and Operation of the Main Post Office Admin. Translation No. 5kk, 30 Apr 56



IL'YASTEVICH, I. N.

Nurseries (Horticulture)

Role of tree and fruit tree nurseries in settlements of sparmely whoded regions L_{BB} . Khoz. 5 No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified

1. IL'YASHEVICH, I. N.

2. USSR (600)

4. Kuybyshev Province - Hagnoliavine

7. Cultivation of Chinese magnoliavine in Gor'kiy Province, Les. khoz., 6, no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

IL'YASHEVICH, V.A.; BOL'SHAKOVA, N.S., insh.; LOPES, G.S.; BIBIKOVA, T.T.,

Continous bleaching of cotton fabrics in open width on the AO -110 production line. Tekstipron, 21 no.12:37:43 D 61.

l. Ispolnyayushchiy obyasamosti saveduyushchego laboratoriyay varochnootbel'nykh mashin Vsesoyusnogo machno-issledovatel'skogo instituta tekstil'nogo mashinostroyeniya (for Kl'yashewich).

2. Vsesoyusnyy nauchno-issledovatel'skiy institut tekstil'nogo mashinostroyeniya (for Bol'ahakova).

3. Glavnyy insh, otbel'no-krasil'noy fabriki Glukhovskogo khlopchatobumashnogo kombinata imeni V.I.Lenina (for Lopes).

4. Khimicheskaya laboratoriya Glukhovskogo khlopchatobumashnogo kombinata imeni V.I.Lenina (for Bibikova).

(Rleaching)
(Assembly-line methods)

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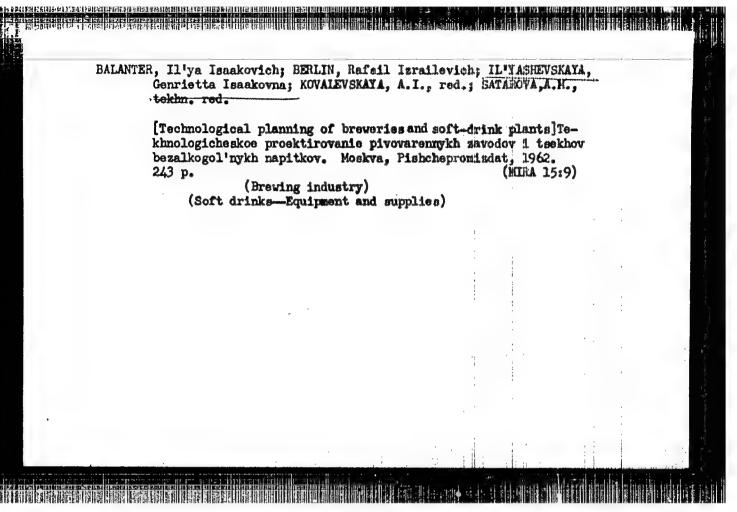
YEVGRAFOVA, M.K., inzh.; ILIVASHEVICH, V.A., Inzh.; VOLTROVA, E.G., nauchn. red.; BABAKOV, A.N., red.

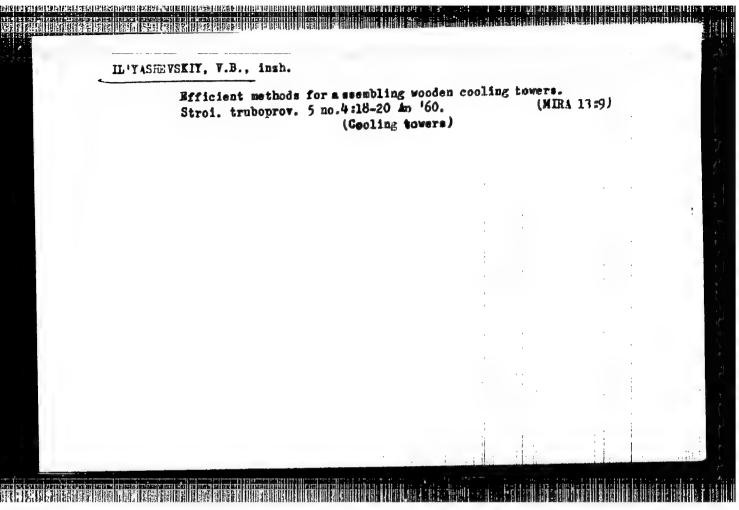
[Continuous action equipment for the bleaching of cotton cloth and knitted fabrics] Oborudovanie nepreryvnogé deistviia dlia otbelki khlopehatobumazhnoi tkani i trikotazhnogo polotna. Moskva, 1963. 39 p. (Seriia III: Novye mashiny, oborudovanie i sredstva avtomatizatsii, no.67)

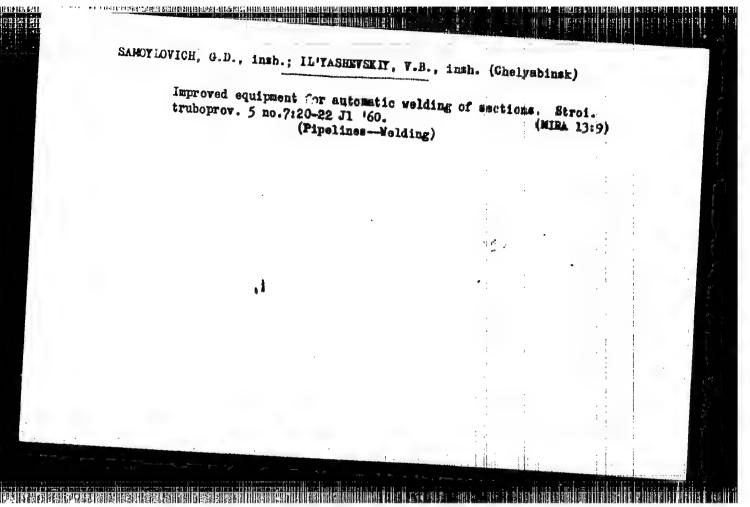
(MIdA 17:7)

1. Moscow. TSentral'nyy institut nauchnostekhnitreskoy insformatsii po avtomatizatsii i mashinostroyeniyu. 2. Vsesoyuznyy nauchnosissledovatel'skiy institut legkogo i tekstil'nogo mashinostroyeniya (for Il'yashevish).

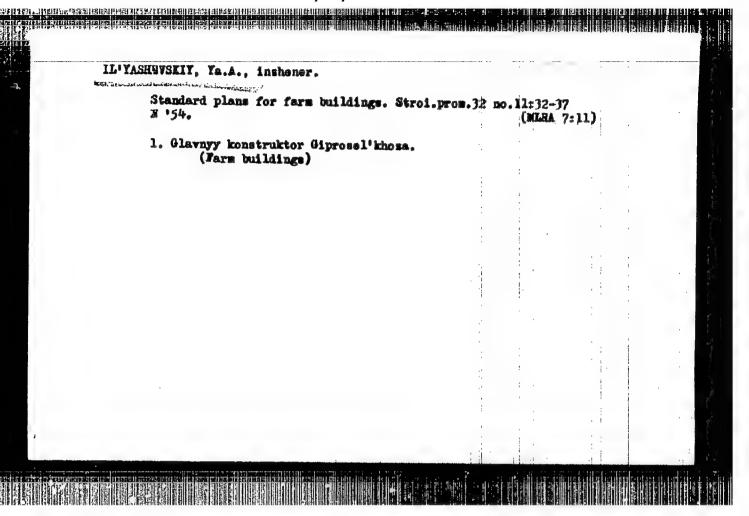
AND THE PROPERTY OF THE PROPER DEREVYANKIN, V.A.; NOVOZHENOV, V.M.; ILIYASHEVICH, Ye.H.; KUZNETSOV, S.I. Effect of washing on the settling rate of red mud in alumina production. TSvet. met. 38 no.9:55 S 465. (MIRA 18:12)

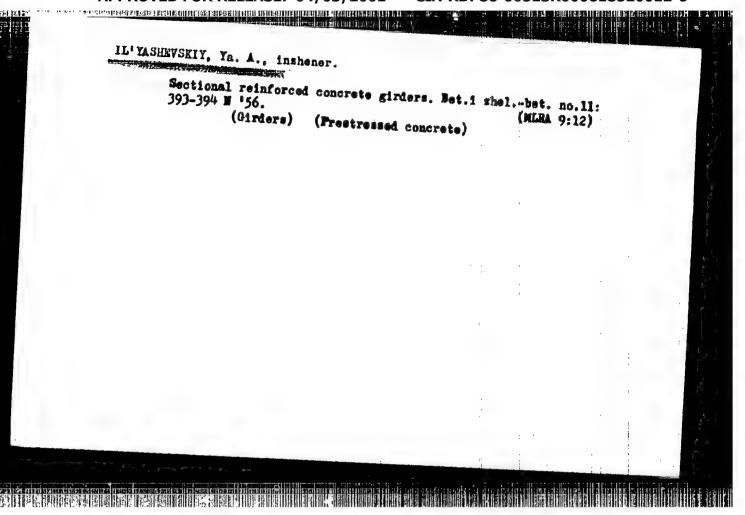


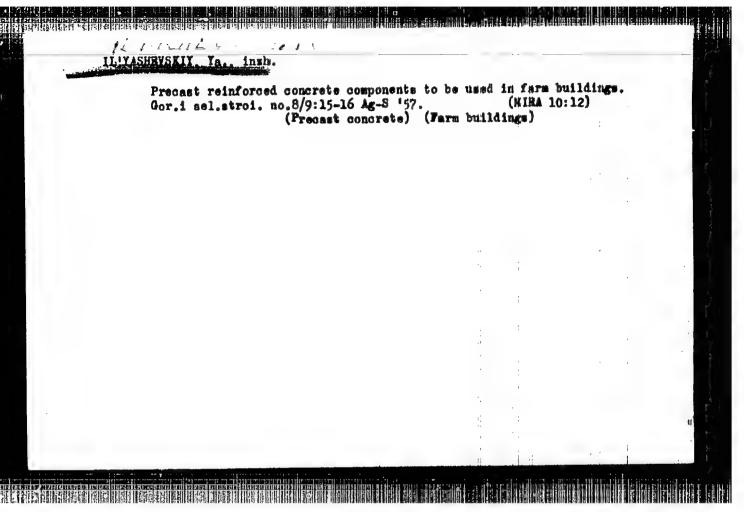


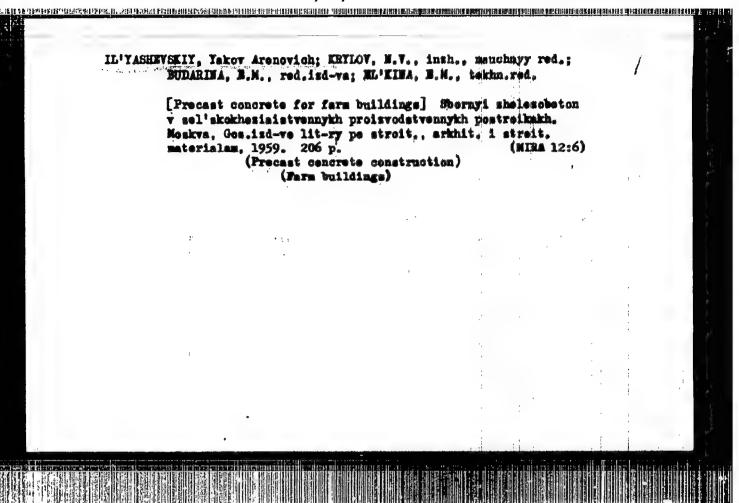


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MURASHEV, V.A., prof., doktor tekhn.nauk; MIROMOV, S.A., prof., doktor tekhn.nauk; ALEKSAHDROVSKIY, S.V., kand.tekhn.nauk; TAL', K.Z., kand. tekhn. nauk; DMITRIYEV, S.A., kand. tekhn. nauk; MULIH, H.K., kand.tekhn.nauk; SIGALOV, E.Ye., kand.tekhn.nauk; NEMIROVSKIY, Ya.M., kand.tekhn.nauk; TABENKIN, N.L., insh. [decensed]; KALA-TUROV, B.A., kand.tekhn.neuk: BRAUDE, Z.I., inzh.: KRYLOV, S.M., kand.tekhn.nauk; FOKIN, K.F., doktor tekhn.nauk; GUSEV, N.M., prof., doktor tekhn.nauk; YAKOVLEV, A.I., inzh.; KOREKEV, B.G., prof., doktor tekhn.nauk; DERESHERVICH, Yu.V., inzh.; MOSEVIN, V.M.; LUR'YE, L.L., insh.; MAKARICHEV, V.V., kend.tekhn.nauk; SHEVCHENKO, V.A., ingh.; VASIL'YEV, B.F., ingh.; KOSTYUKOVSKIY, M.G., kand.tekhn.pauk; MAGARIK, I.L., inzh.; IL'YASHEYSKIY, Yn.A., inzh.; LARIKOV, A.F., inzh.; STULOV, T.T., inzh.; TRUSOV, L.P., inzh.; LYUDKOVSKIY, I.G., kend. tekhn. nauk; POPOV, A.N., kand. tekhn. nauk; VINOGRADOV, N.M., insh.; USHAKOV, N.A., kand.tekhn.nauk; SVERULOV, P.M., insh.; TER-OVANESOV, G.S., insh.; GLADKOV, B.H. kand.tekhn.nauk; KOSTOCHKINA, G.V., arkh.; KUREK, N.M.; OSTROVSKIY, M.V., kand.tekhn.nauk; PEREL SHTEYN, Z.M., ingh.; BUKSHTEYN, D.I., inzh.; (Continued: on next card)

MURASHEY, V.A .- (continued) Card 2.

MIKHAYLOV, V.G., kand.tekhn.nauk; SIGALOV, E.Ye., kand.tekhn.nauk; GVOZDEV. A.A., prof., retsensent; MIKHAYLOV, V.V., prof., retsensent; SHUBIN, K.A., insh., retsensent; TEMKIN, L.Ye., insh., nauchnyy red.; KOTIK, B.A., red., isd-va; GORYACHEVA, T.V., red.isd-va; MEDVEREV, L.Ye., tekhn.red.

[Handbook for designers] Spravochnik proektirovanchika. Pod obshchei red. V.I.Murasheva. Moskva. Gos.isd-vo lit-ry po stroit., arkhit. i stroit.materialam. Vol.5. [Precast reinforced concrete construction elements] Sbornye shelesobetonnye komstrukteii. 1959. 603 p. (MIRA 12:12)

1. Akademiya stroitel'stva i arkhitektury SSSR. Mauchno-issledo-vatel'skiy institut betona i shelesobetona, Perovo. 2. Deystvitel'-nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Murashev. Gvozdev, Mikhaylov. V. V., Pasternak, Shubin). 3. Chlen-korresp. ikademii stroitel'stva i arkhitektury SSSR (for Mironov, Gusev, Moskvin, Kurek).

(Precast concrete construction).

ARKHANGEL'SKIY, P.Ye.; BERNSHTEYN, A.M.; BYKOV, M.A.; DLEGACH, M.L.;

IL'YASHEVSKIY, Ys.A.; KIRILLOV, A.A.; KOZLOVSKIY, A.S.; KRYLOV,
H.V.; LESOV, N.M.; MARTYHOV, P.T.; NIKANIROV, B.I.; PARUNIN,
V.Ye.; RUDANOV, M.L.; SINYAKOV, V.K.; YAL'KNER, O.G.; PETRYAKOV,
A.I., red.; BALLOD, A.I., tekhn.red.

[Manual on the construction of farm buildings] Spravochnik po
sel'skokhosiaistvennomu stroitel'stvu. Moskvs, Gos.isd-vo
sel'khos.lit-ry, 1960. 704 p.

(Farm buildings) (MIRA 13:12)

IL'YASHOV, V,P

AID P - 2967

Subject

: USSR/Electricity

Card 1/1

Pub. 29 - 17/35

Author

Il'yashov, V. P., Eng.

Title

Curves for the computation of maximum current protections

Periodical

Energetik, 5, 22-23, My 1955

Abstract

The author presents computing graphs which he built for the ET-520 and IT-80 type relays. He gives examples of

computation. Two diagrams.

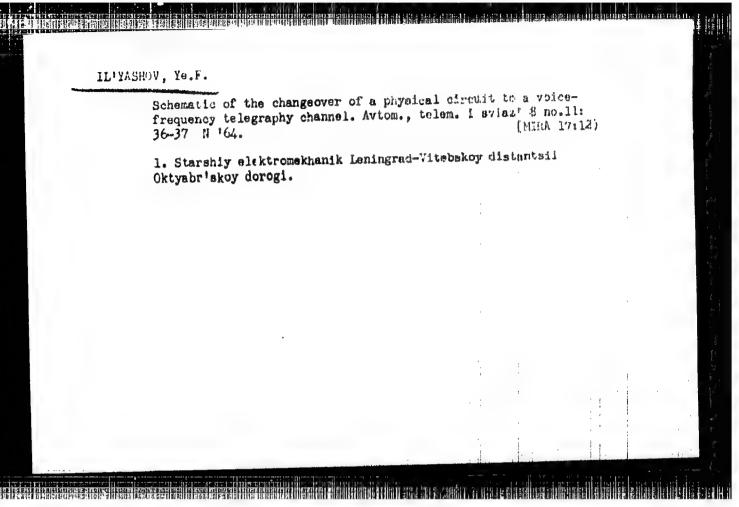
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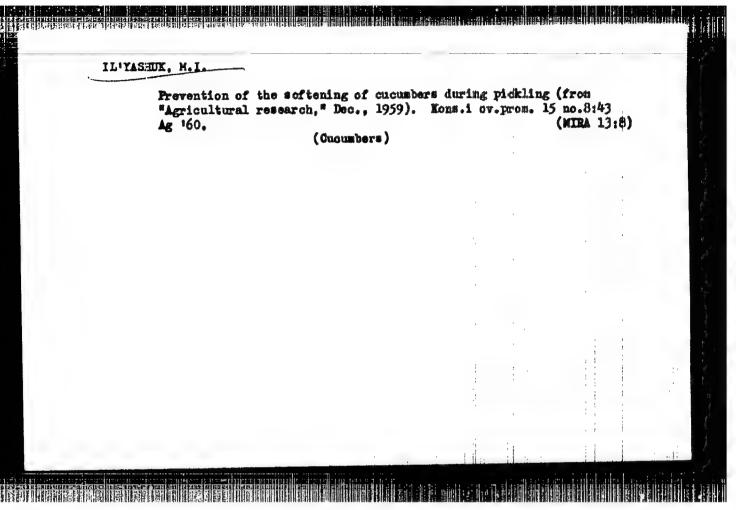
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Submitted

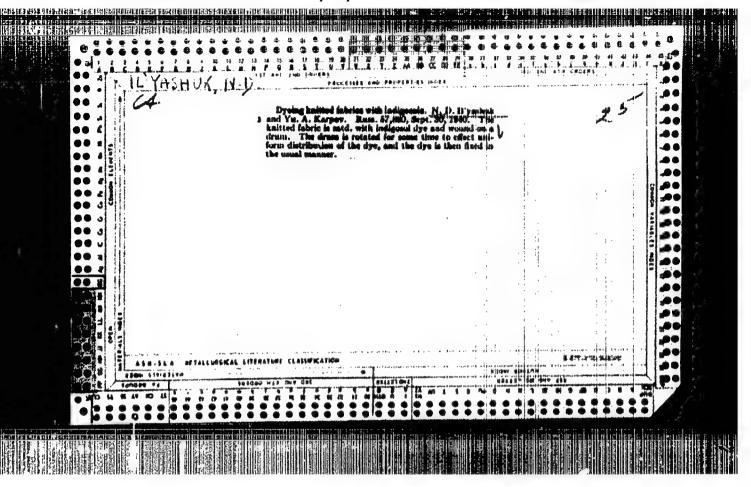
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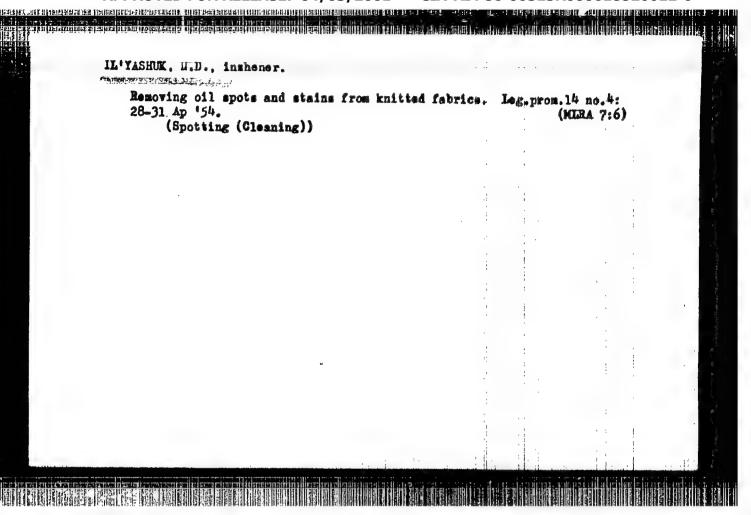
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IL'YASHUK, N. D., "n-tinger

"An Investigation in the Field of Vacuum Dyoing." Cand Tech Sci,
Moscow Textile Inst, 20 January 1955. (VM, 11 Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR
Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

YASHUK.

Category: USSR / Physical Chemistry - Surface phenomena. Admorption.

Chromatography. Ion exchange

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30188

Author : Lipatov S. M., Il'vashuk N. D.

: not given Inst

: Effect of Vacuum on Sorption of Dyes by Fibers Title

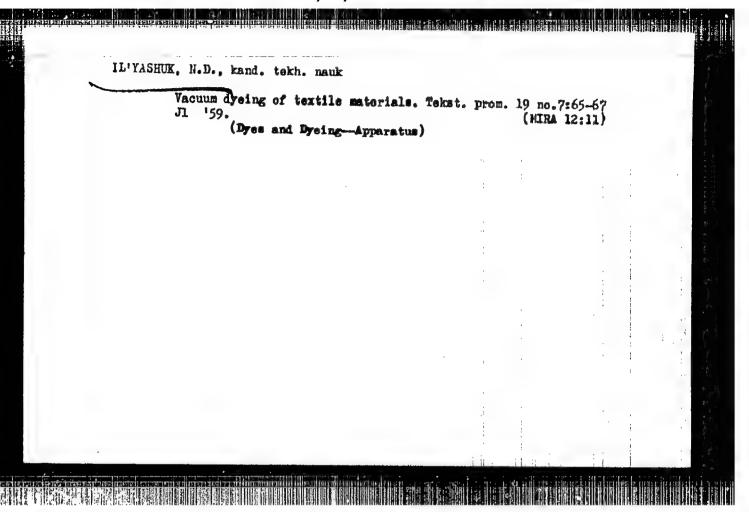
Orig Pub: Kolloid. zh., 1956, 18, No 5, 562-565

Abstract: In a specially designed apparatus a study was made of the sorption

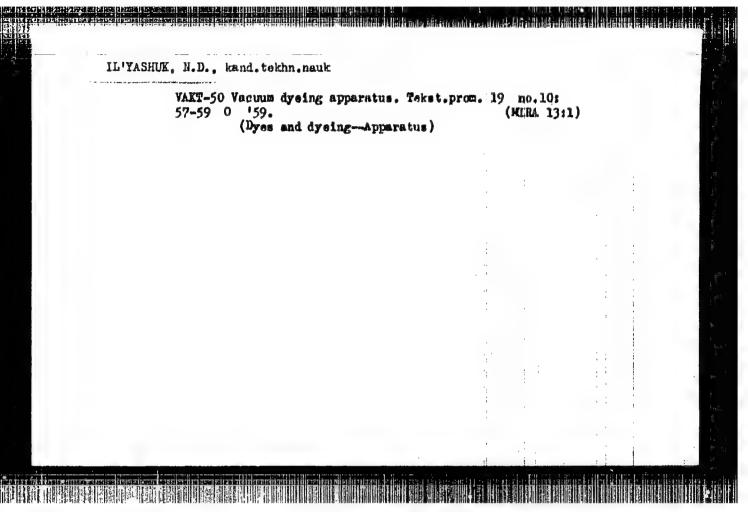
of dyestuffs (1) by fibers, in vacuum. It is shown that under conditions of a vacuum the sorption proceeds much more rapidly than under ordinary conditions, while the equilibrium state is the same in both instances. Experiments confirm the point of view of the authors, to the effect that under ordinary conditions the fibrous material contains air in sorbed and inclosed condition and therefore penetration of D inside the fiber is determined by competition

of the molecules of air and D for space at the surface of the sor-

: 1/2 Card



APPROVED FOR RELEASE: 04/03/2001



IL'TASHUK, M.; GEUSHIM, M.; SEUCHEMEO. B.

Apparatus "Perun-three-15." Prom.koop. 14 no.7:16-17
51 "60.

1. Sotrudniki Muchno-issledovatel'skogo takhnokhimicheskogo
instituta Rospromoveta.

(Cleaning and dysing industry)

IL'YASHUK, N.; BUZINA, Z., inzh.

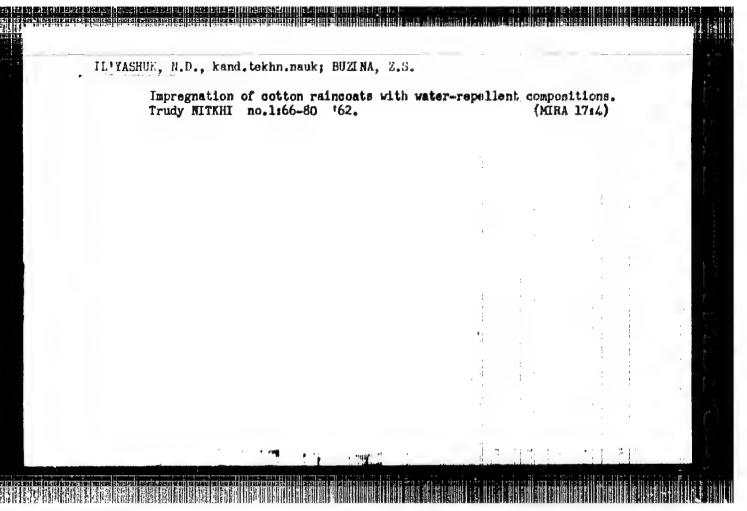
A CASAN BRANCA DE LA SENTE DE DE LA COLLEGA DEBA AS DECIDIO DE LA 1980 A BRANCA DE LA 1980 A BRANCA DE LA 1980

The raincoat is waterproof again. Mest.prom.d khud.promys. 2 no.1:34 Ja 161. (MIRA 14:4)

1. Zaveduyushchiy laboratoriyey Nauchno-issledovatel skogo tekhnokhimicheskogo instituta (for Il'yashuk). (Waterproofing of fabrics)

IL'YASHUK, Nikolay Davidovich; TROSHCHENKO, Mariana Aleksandrovna; COLUBEVA, Aneta Mikhaylovna; ZLATOVEHOV, B.S., red.; TRUSOV, N.S., tekhn. red.

[Technology of the chemical cleaning and dreing of garments] Tekhnologiia khimicheskoi chistki i krasheniia adazhdy. Moslva. Goslytizdat, 1963. 185 p. (MIEA 17:2)



112-57-8-17974

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 8, pp 306-307 (USSR)

AUTHOR: Il'yashuk, Yu. M.

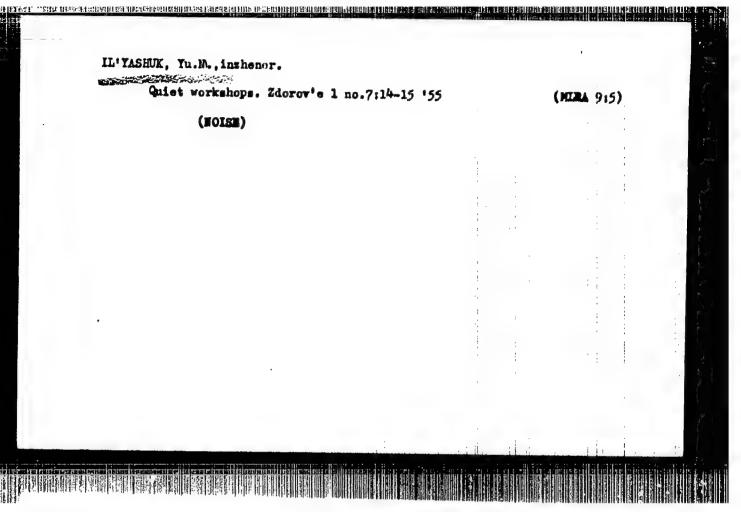
TITIE: Noise-Study Instruments Developed by LIOT (Pribory: dlya issledovaniya shuma, rasrabetannyye LIOT)

PERIODICAL: Tr. Nauch, sessii Vses. m.-i. in-t okhrany truda (Transactions of the Scientific Session of the All-Union Scientific-Research Labor-Protection Institute), 1954, Nr 3, Lemingrad, 1955, pp 82-102

ABSTRACT: The Leningrad Labor-Protection Institute (LIOT) has developed instruments for measuring and analyzing noise. In 1949, a noise meter was developed known as "ShLIOT with a loudness scale." Its noise-measuring range is: intensity level, 35 to 130 db; volume, 35 to 130 phons; loudness in natural-scale units, 0.5 to 5,000. The noise meter is battery supplied. Its weight is about 8 kg, and it is convenient and reliable in operation. It can be used for measuring mechanical vibration by means of a piezo-electric vibration pickup. In 1953, another noise meter was developed known as "Inspektorskiy ShI-53" (Inspector-type ShI-53), (In 1956, it will be manufactured by the industry as type ShI-1.) This noise meter

Card 1/2

	nics - Sound measuring Pub. 89 - 29/30		
Authors :	Il'vashuk, Yu.		
Periodical	Radio 3, 62 - 63, har 1955		
	An analysis is made of the principles of the 11-35 m developed in the All-Union Scientific Research Instit of Labor, to be used in the study of noise in industri elimination. The instrument has small dimensions (A a range from 54 to 140 db, besides being simple in o	hute for the Pi	otection to its
Institution:	of Labor, to be used in the study of nodes de deduction	hute for the Pi	otection to its
	of Labor, to be used in the study of noise in industry elimination. The instrument has grall discussions of	hute for the Pi	otection to its



"A Portable 1/3-Octave Bandpass Spectrometer."

Paper presented at thte 4th all-Union Conf. on Acoustics, Moscow, 26 May - Jun 58.

80V/58-59-4-9075

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 4, p 243 (USSR)

AUTHOR:

Il'yashuk Yu.M.

TITLE:

New Instrument for Noise Frequency Analysis

PERIODICAL:

Byul, nauchno-tekhn, inform, po okhrane tryda, 1958,

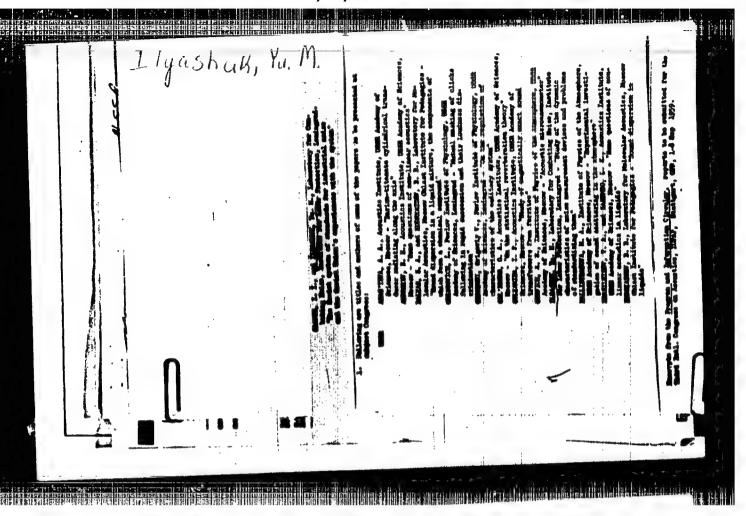
ABSTRACT:

The author describes a noise analyser of the octave bards. A cut of the filter frequency characteristics is 60 db per octave. The instrument is provided with a semi-automatic filter switch costrolled by one hand, se well as a frequency scale with range

brightening. The dimensions of the analyzer are as follows:
333 x 216 x 165 mm; weight: 8 kg. The pointer indicator has a dynamic range of 3 db. The author submits diagrams and photographs of the instrument &3 a whole and of its components. (NII oldrany Truda VTsSPS, Leningrad, USSR).

Card 1/1

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APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618520012-6"

S/194/62/000/001/050/066 D201/D305

AUTHOR:

Il'yashuk, Yu. M.

TITLE:

Dynamic characteristics of noise frequency spectrum

analyzers

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 1, 1962, abstract 1-7-55d (Sb. nauchn. rabot in-

tov okhrany truda VIsSPS, 1960, no. 3, 72-79)

TEXT: The analysis of frequency spectra of noise by means of narrow band, manually tuned analyzers is cumbersome and of dubious value. Because of this the normally used analyzers work in conjunction with automatic recorders. In order to have a constant spectrogram scale the rates of revolution of the analyzer tuning shaft and that of the shaft of the tape moving mechanism are synchronized. nized. The frequency characteristics obtained with continuous analyzer tuning are determined not only by the filter parameters, but also on the speed of the analysis. Such a characteristic, called dynamic, may differ considerably from the static one. The effect of

Card 1/2

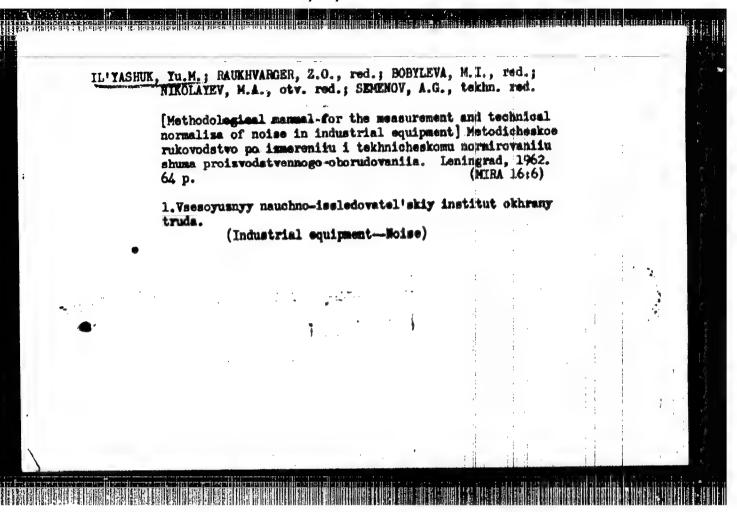
APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000618520012-6"

S/194/62/000/001/050/066
Dynamic characteristics of ... S/194/62/000/001/050/066

special features of instruments on the speed of analysis is considered and a rational system of mechanical drive of automatic analyzers is given: The analyzer and recorder shafts are connected by a normal transmission and this coupled system is revolved at a varying speed by a reduction gear having a continuously varying ratio or by a controlled speed motor. The analysis time of such an analyzer is minimum and remains constant within the whole of the operating range. 3 references. / Abstracter's note: Complete translation. /

Card 2/2

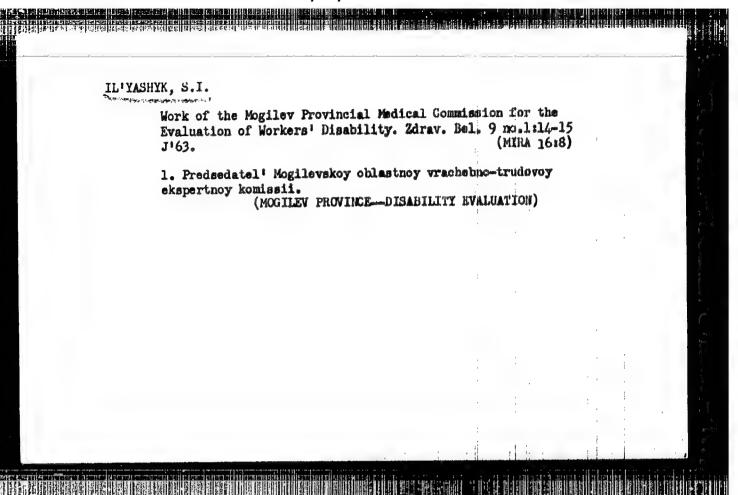


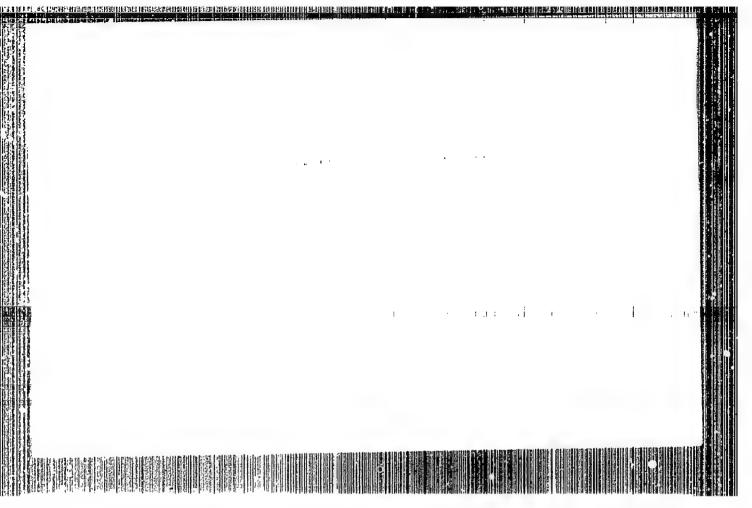
IL'YASHEMUK, Yu. M.,

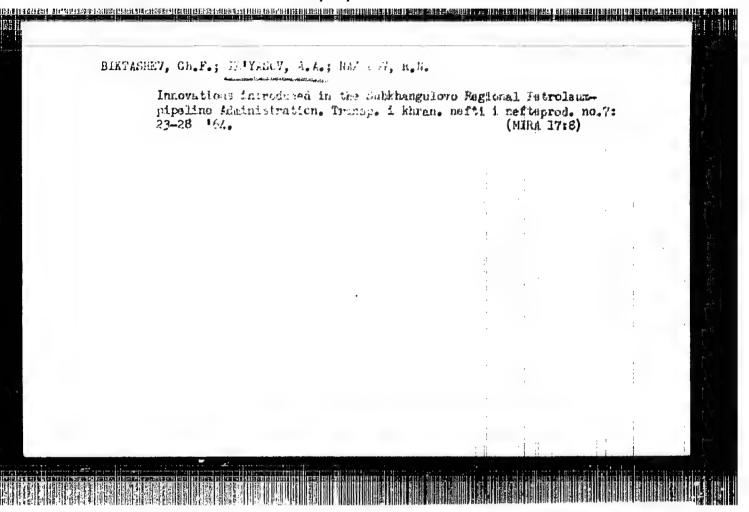
"Investigation of Methods for the Measurement of Commercial Holse and Ways of Improving the Quality" Dissertation for the Degree of Candidate of Sciences, Leningrad Electrotechnic Inst. of Communication im. M. A. Bouch-Bruyevich. Defense held on 10 May 1962.

A classification for noise is defined, and errors in the measurement of noise level are determined. Feaures of different types of frequency analyzers are considered. It is shown that for identical tolerances for the discrepancy between the dynamic and static characteristics of a narrow-band analyzer, the greatest speed of analysis can be obtained in a heterodyne analyzer with linear frequency scale.

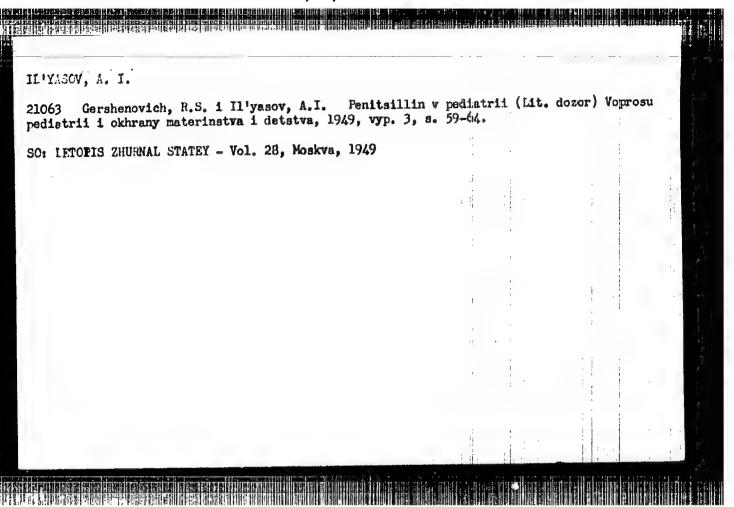
Izv Vysshikh ucheb. zaved. MViSSO SSSR po razdelu Radiotekhnika, vol. 6, No. 1, 1963 p. 98-102 (original checked--Cand. of Sciences at in original.)







APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618520012-6"



IL YASOV, A. I.

"A Study of the State of Bone-Marrow Hemopolesis and the Peripheral Blood in Children During Pneumonia." Cand Med Sci, Tashkent State Medical Inst, 5 Jan 55. (PV, 26 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

80: Sum. No. 556, 24 Jun 55

GHRSHENOVICH, R.S.; IL'TASOV, A.I.; MURIDDINOV, M.P.

Hemstological characteristic of toxic forms of pneumonia in children. Pediatriia no.9:15-19 S '57. (MIRA 10:12)

1. Ix kliniki gespitel'nov pediatrii (dir. - manlumhennyy deystel' nauki prof. R.S.Germhenovich) Teshkentskogo mediteinskogo instituta (PMEUMONIA) (BLOOD--RIAMINATION)

5(1)

AUTHORS:

Burlachenko, I. I., Kulik, A. A.,

307/64-58-8-14/19

Poznyakova, T. H., Il'yasov, A. I.

TITLE:

Exchange of Experience - Experience in Using Liquid Mitrogenous

Fertilizers (Obmen opytom. Opyt primemeniya shidkikh

azotnykh udobreniy)

PERIODICAL:

Khimicheskaya promyshlennost', 1958, Mr 8,

pp 492 - 494 (USSR)

ABSTRACT:

In several Republics of the USSR, as in Unbekistan and Kazakhstan, tests were started in the spring of 1956 on the use of liquid feritilzers. The UZBSR and KazSSR intended

to use liquid ammonia and the ammoniate "A" (NH₄NO₃) 64-67%, NH₃ 14 - 17%, H₂O 16 - 22%, N₂ total 34-37%) on

cotton plantations of an area of 5000 hectares. The Kombinat

referred to in the Association was remponsible both for

the production and the technical aspects of the transportation of the liquid nitrogenous fertilizer. Ammonia tanks ATS-15C (on the chassis of the truck ZIS-150 with 2 cu.m.capacity,

Card 1/3

Exchange of Experience - Experience in Using Liquid 504/64-50-8-10/19 Nitrogenous Fertilizers

1350 kg ammonia, weight 1300 kg, 20 atmospheres) and the mobile tank ATSA-63 (on the chassis of a GAZ-63 truck: 2 cu. m., 2 t ammoniate, 2 atmospheres) were used, the latter for ammoniate. Both types showed a few shortcomings. The cpraying of ammoniate was done by a Soviet machinePUA-1 and imported American machines. The former proved to be more efficient, though the tanks were too small. The results of tests conducted to establish the amount of energy needed for distributing liquid fertilizer (Table 1) and the effects of fertilizing (Table 2) are given in the article. Apart from the savings in the number of workers effected by the use of liquid fertilizers instead of ammondum nitrate (0.2 - 0.3 workers per day instead of 0.7), a further saving of 40 roubles per hectare is possible, as was found by the Ministerstvo sel'skogo khozyaystva respubliki (Ministry of Agriculture of the Republic). The cost price of 1 kg of nitrogen in the form of ammonia is 35% lower than with ammonium nitrate. According to the GIAP, capital investment for the construction of a 100000 t annual capacity armonia plant is 100-110 million rbl. lower than for a similar

Card 2/3

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R000618520012-6"

Exchange of Experience - Experience in Using Liquid Nitrogenous Fertilizers

SCV/64-36-8-10/19

ammonium nitrate manufacturing plant. In 1957 experiments with liquid fertilizers were expanded considerably; gasoline tanks ATs-3800 were used for transporting ammonia and ammoniate. Moreover, the American machines mentioned above were modified. There are 3 tables.

ASSOCIATION:

Chirchikskiy elektrokhimicheskiy kombinat im. I. V. Stalina (Chirchik Electro-Chemical Kombinat imeni I. V. Stalin)

Card 3/3

MABIYEV, M.N.; PAIETSKIY, G.V.; ANISIMKIN, I.C.; HEBENKO, M.; KALININ, Ye.P.;

TROPINOV, S.M.; VURGAFT, G.V.; POPOV, V.S.; KOROL', P.Z.;

KULIK, A.A.; KAL'MAN, L.A.; PARBER, S.I.; MATVEYEVA, M.Ye.;

GAVRILOV, V.S.; KADYROV, V.E.; IL'YASOV, A.I.; KAKUROV, S.G.;

PROSKURIN, M.P.; NESTERENKO, A.P.; DEDWIN; W.D.; KOCHEROV, V.,

red.; POPOV, V., red.; SALAKHUTDINOVA, A., tekhm. red.

[Ghirchik, a city of major industrial chemical complexes]

Chirchik - gorod bol'shoi khimii. Tashkent, Gosisdat UMSSR,

(MIRA 16:6)

1. Chlen-korrespondent Akademii nauk UMSSR (for Nabiyev).

2. Rabotniki Chirchikskogo elektrokhimkombinata (for all

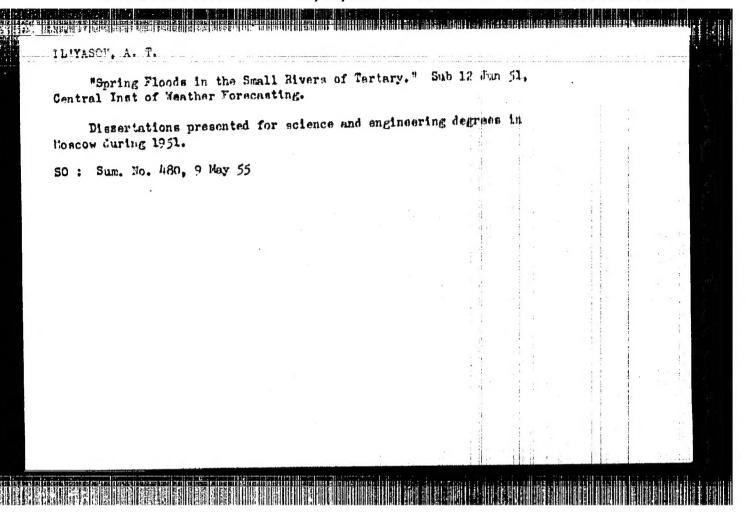
except Nabiyev, Kocherov, Popov, V., Salakhutdinova).

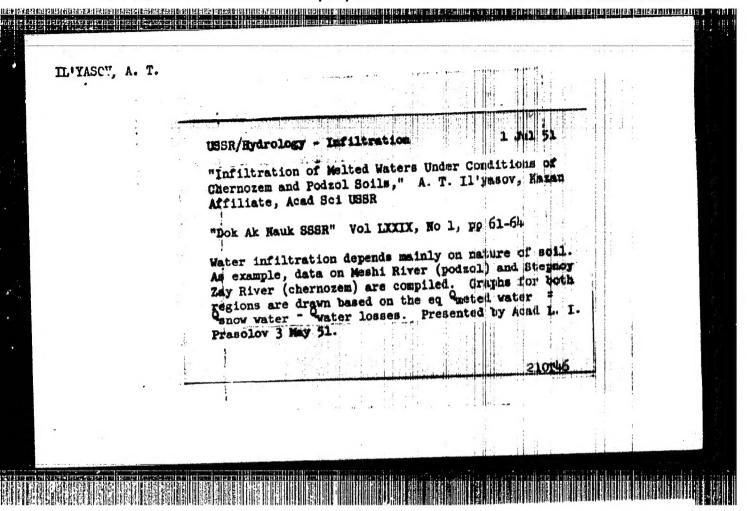
(Chirchik—Chemical plants)

NABIYEV, M.N., akademik; IBRAGIMOVA, U.I.; IL'YASOV, A.I.; RUBO, V.M.;
NOVIKOVA, F.V.; GLAGOLEV, Ye.D.; GLAGOLEVA, A.F.; EYDEL'MAN, A.S.,
red.

[Liquid mixed fertilizers produced by treating phosphates with nitric acid] Zhidkie slozhnye duobreniia na osmove asotnokislotnoi pererabotki fosfatov. Tashkent, Isd-vo "Nauka" USSER, 1965.
402 p. (HIRA 18:8)

1. AN UzbekSSR (for Nabiyev). 2. Institut khimii All UzbekSSR (for Ibragimova). 3. Chirchiskiy elektrokhimicheskiy kombinat (for Il'yasov.





ILIYASOV A. T.

Kuybyshev region - rivers

Studying small rivers in the Kubyshev reservoir sone with the objective of using them for transport. Rech. transp. 12 No. 3. 1952.

Monthly List of Bussian Accessions, Library of Congress, August 1952, Unclassified,